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10/656,118	09/08/2003	Akihito Mori	00862.023218.	7053

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NEW YORK, NY 10112

EXAMINER
DICKER, DENNIS T

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2008*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-15* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *08 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All   b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

4/25/2008 has been entered.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-5 and 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Furukawa et al. (hereinafter "Furukawa '065" US 2001/0046065) in view of Tonkin

(hereinafter "Tonkin '568" 6,134,568) and further in vide of Tanimoto (hereinafter

"Tanimoto '314" US PUB 2003/0206314)

        With respect to **Claim 1**, Furukawa '065 discloses a printing control apparatus

which performs a printing process employing a plurality of printing devices **(i.e., Para**

0012, a Printing control apparatus employing a plurality of printers), comprising: a

printing attribute acquisition unit **(i.e., Para 0049, Host computer)** configured to

acquire an attribute of a printing job to be processed **(i.e., Para 0050-0057, Host computer acquires attributes such as resolution and number of pages)**; an adaptive environment determination unit configured to obtain device combinations **(i.e., Para 0059, host computer determines match of network printers)** capable of executing the printing job based on performance information **(i.e., Para 0060 , host computer determines match of printers based on speed of printers)** representing at least performance of each of the plurality of printing devices and the acquired attribute of the printing job **(i.e., Para 0060, host computer executes print job depending on least performance such as speed and acquired attribute such as number of print pages) by said adaptive environment determination means)** and Tonkin '568 teaches a display unit **(i.e., Col. 4 Lines 51, Display)** configured to display a process flow **(i.e., 326 of Fig. 5F and Col. 7 Lines 57 61,the display shows a process flow for the printing job).**

The combination of Furukawa '065 and Tonkin '568 does not explicitly teach a display unit configured to display a process flow list representing a process flow to execute the printing job by employing the device combinations, wherein the process flow list is a list in which a plurality of procedures which constitute the printing job are listed in the order of execution, and wherein the plurality of procedures include work procedures to be performed by a user and process procedures to be performed by respective printing devices included in the device combinations obtained by said adaptive environment determination unit.

However, the mentioned claimed limitations are well known in the art as evidenced by Tanimoto '314, In particular, Tanimoto '314 teaches the use of a display unit **(i.e., Para 0005, notification unit)** configured to display a process flow list representing a process flow to execute the printing job by employing the device combinations **(i.e., Fig. 2A, Flow Table),** wherein the process flow list is a list in which a plurality of procedures which constitute the printing job are listed in the order of execution **(i.e., Para 0027 , Flow list displays list in order of a first and second processing unit of a print job)**, and wherein the plurality of procedures include work procedures to be performed by a user and process procedures to be performed by respective printing devices included in the device combinations **(i.e., Para 0028 and Fig. 2A)** obtained by said adaptive environment determination unit **(i.e., Para 0004).**

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the apparatus of Furukawa '065 and Tonkin '568 as taught by Tanimoto '314 since Tanimoto '314 suggested in Para 0003-0004 that such a modification would provide an improved workflow management device that can determine a subsequent processing operation according to the content of the image data.

With respect to **Claim 2**, Furukawa does not explicitly teach a printing control apparatus according wherein when a plurality of device combinations exist said adaptive environment determination unit determines an order of the device combinations under a condition designated in advance, and presents the device combinations in that order.

However, the mentioned claimed limitations are well known in the art as evidenced by Tonkin '568, In particular, Tonkin '568, teaches the use of a print control apparatus comprising a printing control apparatus according wherein when a plurality of device combinations exist **(i.e., 672 of Fig. 9 and Col. 13 Lines 47-51, device combinations of a plurality of mediums exist),** said adaptive environment determination unit determines an order of the device combinations under a condition designated in advance **(i.e., 674 of Fig. 9, Device combinations are designated in advance by determination means)**, and presents the device combinations in that order **(i.e.,326 of Fig. 5F, Device combinations listed in order).**

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printing control apparatus of Furukawa '065 as taught by Tonkin '568 since Tonkin '568 suggested in Col. 2 Lines 24-30 and Col. 2 Lines 58-61 that such a modification would allow a document assembler the ability to view an image of the assembled document and reduce the like hood of miscommunication between the , thereby further reducing the likelihood of errors or misunderstandings.

With respect to **Claim 3**, Furukawa '065 does not teach an apparatus wherein the performance information includes pieces of information on a printing speed, a cost, and a device installation place, and wherein said adaptive environment determination unit determines the order under a condition including any one of the printing speed, the cost, and the device installation place.

However, the mentioned claimed limitations are well known in the art as evidenced by Tonkin '568, In particular, Tonkin '568, teaches the use of a print control apparatus wherein the performance information includes pieces of information on a printing speed, a cost, and a device installation place **(i.e., Col. 13 Lines 31-41, performance information includes printing speed, cost and device installation place)**, and said adaptive environment determination unit determines the order under a condition including any one of the printing speed, the cost, and the device installation place **(i.e., Col. 13 Lines 31-41, determination unit lists the order under a condition of printing speed or cost)**

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printing control apparatus of Furukawa '065 as taught by Tonkin '568 since Tonkin '568 suggested in Col. 2 Lines 24-30 and Col. 2 Lines 58-61 that such a modification would allow a document assembler the ability to view an image of the assembled document and reduce the like hood of miscommunication between the , thereby further reducing the likelihood of errors or misunderstandings.

With respect to **Claim 4**, Furukawa '065 teaches an apparatus wherein the apparatus further comprises state acquisition means **(i.e., Para 0050, host computer)** for acquiring a process state of a printing device in use for executing the printing job **(i.e., Para 0050-0058, is able to acquire current process states of network printers)**.

The combination of Furukawa '065 and Tonkin '568 does not explicitly teach wherein said display unit displays a current process status together with the process flow list on the basis of the acquired process state.

However, the mentioned claimed limitations are well known in the art as evidenced by Tanimoto '314, In particular, Tanimoto '314 teaches the use of a display unit displays a current process status together with the process flow list on the basis of the acquired process state **(i.e., Fig. 2A).**

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the apparatus of Furukawa '065 and Tonkin '568 as taught by Tanimoto '314 since Tanimoto '314 suggested in Para 0003-0004 that such a modification would provide an improved workflow management device that can determine a subsequent processing operation according to the content of the image data.

With respect to **Claim 5**, the combination of Furukawa '065 and Tonkin '568 does not explicitly teach an apparatus wherein in the displayed process flow list, one of the working procedures or the process procedures which are in progress or are to be performed next is emphatically displayed to present the current process status.

However, the mentioned claimed limitations are well known in the art as evidenced by Tanimoto '314, In particular, Tanimoto '314, teaches the use of an apparatus wherein in the displayed process flow list, one of the working procedures or the process procedures which are in progress or are to be performed next is

emphatically displayed to present the current process status **(i.e., Fig. 2A, displayed process flow, displays procedures in progress and waiting to be processed next).**

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the apparatus of Furukawa '065 and Tonkin '568 as taught by Tanimoto '314 since Tanimoto '314 suggested in Para 0003-0004 that such a modification would provide an improved workflow management device that can determine a subsequent processing operation according to the content of the image data.

With respect to **Claim 7**, Furukawa '065 does not explicitly teach an apparatus wherein the apparatus further comprises second display unit configured to display device combinations capable of executing the printing job so as to be able to select one of the device combinations, and wherein said display unit displays a process flow list of the printing process by a combination selected via said display unit.

However, the mentioned claimed limitations are well known in the art as evidenced by Tonkin '568 and Tanimoto '314, In particular, Tonkin '568, teaches the use of an apparatus wherein the apparatus further comprises second display unit **(i.e., 310 of Fig. 5B, a second display screen)** configured to display device combinations capable of executing the printing job **(i.e. 435 and 436 of Fig. 5F, Devices that can be combined and are displayed on display unit)** so as to be able to select one of the device combinations **(i.e., Col. 7 Lines 47-48 and 316-318 of Fig 5F, User may select a combination)** and Tanimoto '314 teaches a display unit which displays a process

flow list of the printing process by a combination selected via said display unit **(i.e., Fig. 2A)**.

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printing control apparatus of Furukawa '065 as taught by Tonkin '568 and Tanimoto '314 since Tonkin '568 suggested in Col. 2 Lines 24-30 and Col. 2 Lines 58-61 that such a modification would allow a document assembler the ability to view an image of the assembled document and reduce the like hood of miscommunication between the , thereby further reducing the likelihood of errors or misunderstandings and Tanimoto '314 suggested in Para 0003-0004 that such a modification would provide an improved workflow management device that can determine a subsequent processing operation according to the content of the image data.

With respect to **Claim 8**, Furukawa '065 does not explicitly teach an apparatus wherein when the attribute of the printing job contains color printing, said adaptive environment determination unit detects monochrome and color pages contained in the printing job, and determines a device combination so as to print the monochrome page by a monochrome printing device.

However, the mentioned claimed limitations are well known in the art as evidenced by Tonkin '568, In particular, Tonkin '568, teaches the use of an apparatus wherein when the attribute of the printing job contains color printing, said adaptive environment determination unit detects monochrome and color pages contained in the printing job, and determines a device combination so as to print the monochrome page

by a monochrome printing device **(i.e., 674 of Fig. 9, Determination unit detects monochrome and color pages and determines a device combination for printing respective pages).**

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the printing control apparatus of Furukawa '065 as taught by Tonkin '568 since Tonkin '568 suggested in Col. 2 Lines 24-30 and Col. 2 Lines 58-61 that such a modification would allow a document assembler the ability to view an image of the assembled document and reduce the like hood of miscommunication between the , thereby further reducing the likelihood of errors or misunderstandings.

With respect to **Claim 9,** Furukawa '065 teaches an apparatus wherein the apparatus further comprises a state acquisition unit **(i.e., Para 0049, Host Computer)** configured to acquire a device state of a device included in the device combination actually used to process the printing job **(i.e., Para 0050-0058, Host computer acquires a device state of a device included in the device combination)**

The combination of Furukawa '065 and Tonkin '568 does not explicitly teach an apparatus wherein said display unit changes a display state of the process flow list on the basis of the device state acquired by said state acquisition unit.

However, the mentioned claimed limitations are well known in the art as evidenced by Tanimoto '314, In particular, Tanimoto '314, teaches the use of an apparatus wherein said display unit changes a display state of the process flow list on

the basis of the device state acquired by said state acquisition unit **(i.e., Para 0027,**

display unit displays status information)

In view of this, it would have been obvious to one having ordinary skill in the art

at the time of invention was made to modify the apparatus of Furukawa '065 and Tonkin

'568 as taught by Tanimoto '314 since Tanimoto '314 suggested in Para 0003-0004 that

such a modification would provide an improved workflow management device that can

determine a subsequent processing operation according to the content of the image

data.

With regards to the apparatus of **Claim 10**, the limitations of the claim 10 are

corrected by limitations of claim 5 above. The steps of claim 10 read into the function

step of claim 5.

With respect to **Claim 11**, Furukawa '065 teaches a printing control method **(i.e.,**

Para 0012, Print control method) for performing a printing process employing a

plurality of devices **(i.e., Para 0012, a Printing control apparatus employing a**

plurality of printers), comprising: a printing attribute acquisition step of acquiring an

attribute of a printing job to be processed **(i.e., Para 0050-0057, Host computer during**

attribute acquisition step acquires attributes such as resolution and number of

pages) an adaptive environment determination step of obtaining device combinations

(i.e., Para 0059, host computer determines match of network printers) capable of

executing the printing job based on performance information **(i.e., Para 0060 , host**

computer determines match of printers based on speed of printers) representing at

least performance of each of the plurality of devices and the acquired attribute of the

printing job **(i.e., Para 0060, host computer executes print job depending on least performance such as speed and acquired attribute such as number of print pages)**; and Tonkin '568 teaches a display unit **(i.e., Col. 4 Lines 51, Display)** configured to display a process flow **(i.e., 326 of Fig. 5F and Col. 7 Lines 57 61,the display shows a process flow for the printing job).**

The combination of Furukawa '065 and Tonkin '568 does not explicitly teach a display unit configured to display a process flow list representing a process flow to execute the printing job by employing the device combinations, wherein the process flow list is a list in which a plurality of procedures which constitute the printing job are listed in the order of execution, and wherein the plurality of procedures include work procedures to be performed by a user and process procedures to be performed by respective devices included in the device combinations obtained by said adaptive environment determination step

However, the mentioned claimed limitations are well known in the art as evidenced by Tanimoto '314, In particular, Tanimoto '314 teaches the use of a display unit **(i.e., Para 0005, notification unit)** configured to display a process flow list representing a process flow to execute the printing job by employing the device combinations **(i.e., Fig. 2A, Flow Table)**, wherein the process flow list is a list in which a plurality of procedures which constitute the printing job are listed in the order of execution **(i.e., Para 0027 , Flow list displays list in order of a first and second processing unit of a print job)**, and wherein the plurality of procedures include work procedures to be performed by a user and process procedures to be performed by

respective devices included in the device combinations **(i.e., Para 0028 and Fig. 2A)** obtained by said adaptive environment determination step **(i.e., Para 0004).**

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the apparatus of Furukawa '065 and Tonkin '568 as taught by Tanimoto '314 since Tanimoto '314 suggested in Para 0003-0004 that such a modification would provide an improved workflow management device that can determine a subsequent processing operation according to the content of the image data.

With regards to the method of **Claim 12**, the limitations of the claim 12 are corrected by limitations of claim 7 above. The steps of claim 12 read into the function steps of claim 7.

With regards to the method of **Claim 13**, the limitations of the claim 13 are corrected by limitations of claim 9 above. The steps of claim 13 read into the function steps of claim 9.

With regards to the computer readable medium of **Claim 14**, the limitations of the claim 14 are corrected by limitations of claim 1 above. The steps of claim 14 read into the function steps of claim 1.

With regards to the computer program product of **Claim 15**, the limitations of the claim 15 are corrected by limitations of claim1 above. The steps of claim 15 read into the function steps of claim 1.

4.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over ' 065,

'568 in view of '314 and further in view of Fukuchi (hereinafter "Fukuchi '451" 6,128,451)

With respect to **Claim 6**, the combination of Furukawa '065, Tonkin '568 and

Tanimoto '314 does not explicitly teach an apparatus wherein the process flow includes

a message which prompts checking or replenishment of an expandable used by the

printing device as a preparation process.

However, the mentioned claimed limitations are well known in the art as

evidenced by Fukuchi '451, In particular, Fukuchi '451 teaches the use of an apparatus

wherein the process flow includes a message which prompts checking or replenishment

of an expandable used by the printing device as a preparation process **(i.e., Col. 6**

Lines 45-51, preparation process the process flow 24 of Fig. 3 prompts

replenishment of an expandable [toner] use by the printing device as a

preparation process)..

In view of this, it would have been obvious to one having ordinary skill in the art

at the time of invention was made to modify the apparatus of Furukawa '065, Tonkin

'568 and Tanimoto '314 as taught by Fukuchi '451 since Fukuchi '451 suggested in Col.

1 Lines 50-52 that such a modification would create less of a disturbance to the user.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Du (US 6,052,684). System allowing consistent execution of a workflow process

in a computer enabled workflow management system.

Arlege, Jr. et al (US 6,535,294) System for preparing customized printed

products over a network.

Todaka (US 6,785,022) A data processing apparatus capable of connecting to a

plurality of terminals and transferring stored/converted data to one of the terminals.

Lahey at al. (US 7,028,303) Processing a job in an even driven workflow

environment.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DENNIS DICKER whose telephone number is (571)270-

3140. The examiner can normally be reached on Monday -Thursday 7:30 A.M. to 5:00

P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Twyler Haskins can be reached on (571) 272-7406. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. D./
Examiner, Art Unit 2625
6/24/2008

/Twyler L. Haskins/
Supervisory Patent Examiner, Art Unit 2625